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RELATION OF THE PENTAGONAL DODECAHEDRON
FOUND NEAR MARIETTA, OHIO, TO SHAMANISM.

BY J. CHESTON MORRIS, M.D.

(Read April 23, 1897.)

I regret that I am unable this evening to present to the Society, as I had hoped, a very intelligent and well-educated Néz Percé Indian, Mr. Lewis D. Williams, who called upon me some two months ago and read a paper which he had prepared on the education and training an Indian boy receives in his native home. It recalled vividly to me Dr. Brinton's communication to us two years ago on the Nagual form of worship (*Proc.*, Vol. xxxiii, pp. 4, 11, 73), and I had hoped to secure his presence. Unfortunately I have lost trace of him (as he is no longer in the employ of the Bureau of Am. Ethnology at Washington), and can therefore only give a résumé of it from memory. He left his tribe when about fifteen years old, was educated at Carlisle and the University of Pennsylvania, before entering the employ at Washington of the Bureau of Am. Ethnology. He spoke of the boy's close observation of nature in the world around him and his companions, of the inquiry which arises in all human hearts as to the meaning and object of life, and the forces which are displayed, the means of utilizing them, of obtaining success: of the belief in hidden unseen powers controlling or directing or opposing our efforts: of the brave hunters and successful warriors, of the older wiser rulers, of the medicine men and the ceremonial dances and rites of the tribe. He told of the time when the boy hitherto nameless must take, or have given to him, a name. What shall it be? He told the myth that once on a time a wise medicine man had a sacred tepee; to him came the beings which became the various animals and birds, each with its own ambition. One would come and say, "I want to be an eagle." "Well, let me see how you can fly." Off he soared, and came back after flying up toward the sun, and was received with the encouragement, "All right, go and be an eagle." Another wanted also to be an eagle, but only fluttered a little way, lit upon a tree and came back chattering, to be told, "No, you can't be an eagle, you must be a bluejay." Another showed ability, and was allowed to become, at his desire, a wolf. Yet another, try-

ing to run like him, only ambled around and sat upon his haunches to be told with a laugh, "No, no, you can only be a coyote." (This reminded *me* of the bringing of the animals to Adam for their names.) Filled with longing to know his fate in life, the boy goes off into the forest, and communes with nature. He longs to be something, somebody. He tests his powers of endurance, his skill, his desires. Many and long may be his rambles in this effort to place himself in his proper niche in the world. He becomes dreamy—he longs to see a vision or to have some sign to direct him. Perhaps some night one of these unseen spirit forces may make itself known to him. At last, one night when all alone on the mountain side, he sees, or thinks he sees, a wolf approaching, who comes and talks to him, encourages him, lays open his career of duty to him, and tells him if he will be brave and faithful he will aid him and cause him to triumph over every difficulty, bids him come close to him and pluck some hairs from his neck and keep them always with him so that whenever he is in trouble he can by pressing or rubbing them call his guardian spirit to his aid and thus be enabled to succeed and triumph over his difficulties or enemies, or receive counsel in emergencies. The boy returns home, tells his experiences, is tested, and if found truthful and brave is initiated into the lodge under the guardianship of the wolf which he takes as his totem; and in the sacred dances wears the appropriate symbolic mask. Little by little, year after year, as he shows himself fitted and acquires more knowledge and experience, learns more of the legends of the tribe in which are crystallized the results of their contact with nature and their reasonings upon it, he is advanced more and more, and becomes a medicine man, or an elder, or chief, taking part in the councils and directing the affairs of the community. The older, wiser, more reliable he becomes the more respect is shown him.

The idea, so common among us, that their medicine men are all mere quacks and humbugs, charlatans of a low grade, and that all their dances are low orgies and mere devil-worship—that the Indian is an untutored, untrained savage, bloodthirsty, revengeful and treacherous—is largely erroneous, and due to a lack of proper and adequate knowledge of him as he really is: and of consideration of his circumstances in the world. Place a human being of average capacity of any other race in similar conditions, and the probabilities are that his chances of survival would be less, to say

nothing of the system of a philosophy of the unseen but no less real forces around, above and within him which he has developed. He is in many respects a child—and so we too are but “children of a larger growth.” When things hurt or oppose him, or others injure him, he grows angry and avenges himself unreasoningly and excessively, as a child would. Higher aims and purposes he has little chance to acquire. Yet there is the yearning for the higher, the better—for the pure and true, for the brave and good: when these are shown to him he seizes upon them and grows to the full stature of man. How often this has been shown—and yet how often it is ignored!

In every age and clime, among every race, there have been and are those who have sought to know more of the truths around, above and in them—men who have risen above their fellows, and have been looked up to as leaders and advisers of the rest—and also in every race and age these men have been credited with supernatural powers—have been supposed to be in communication with the world of spirits: and too often alas they have used their attainments only for their own selfish ends: have availed themselves of the ignorance and superstition of those beneath or around them and by trickery have magnified their influence. If we, however, think of the meaning of such terms as “soothsayer,” “wahrsager,” “wise heart” (wizard), “astrologers,” “magicians,” and think of their succession in the history of our race, from that of the wise men of the East, Balaam, Jannes and Jambres, the Pythian and Delphic oracles, the Roman augurs and haruspices—nay, even of Paracelsus, who may almost be called the father of modern physiological medicine, we shall have less disposition to condemn so utterly the Indian medicine man: especially as we read of Daniel, who was made and seems to have accepted the post of “chief of the magicians, soothsayers, astrologers and Chaldeans.” In fact, the yearning after occult science is as powerful and prevalent in Paris, London and Berlin, not to mention among ourselves, as in India among the Brahmins and Buddhists—it is a human yearning. To penetrate the secrets of or to forecast the future—to resort to some species of divination—to seize upon and compel the unknown, is so human that Goethe makes it the aspiration of his Faust.

We need not wonder then that Shamanism, the idealizing and spiritualizing of the forces of Nature, became so prevalent among the children of the forests and mountains, of the plains and sea-

shores, of the New World as it did in the Old ; that mystic dances, rites and symbols abound among them—that Nature speaks to them with myriad tongues : that they should try to penetrate her secrets by methods of divination more or less analogous or identical with those of similar races. But here comes in a factor which is too often disregarded—the influence of race. Truth, absolute truth, must always remain the same : not so our appreciation of it, which must in every case be more or less partial, more or less incomplete. Some races have little or no idea of harmony—others of lapse of time—others of liberty—others of home. The Western races of the Old World view things objectively, the Eastern subjectively. The Indian resembles the latter—the world is in him and he is of it. Our Aryan brains take readily the idea of three dimensions in space. To the Indian, and to the Eastern mind, there is another—the fullness. It is hard for us to grasp this—it is not the length and breadth and thickness of a cube for instance, but the whole of it, which is as much to be considered as any one of its sides. A cube would, therefore, be represented numerically by 7 : a dodecahedron by 13. Among the Mexicans the thirteen lunar months would thus correspond in the year with the twelve zodiacal signs and the earth which passed under and embraced them all. Again, the five digits on each hand came to be a measure of a man's power or individuality, and thus a sacred number. It would then require but little stretch of imagination to suppose that a pentagonal dodecahedron, were such a form known to them, inscribed with zodiacal characters, might be the emblem of the world : and the best time for the activity of a man in some pursuit in which he might wish to engage might be shown by the zodiacal sign which came uppermost when the dodecahedron was thrown or rolled with appropriate ceremonies.

Such is the hypothesis which I would offer as to the character and uses of this curious stone dodecahedron, which was sent to the Society on October 19, 1792, and has since been lying in the Cabinet. The record shows it to have been taken from a bluff on the Ohio river, about thirty miles above Marietta ; and it was sent here with other Indian relics. The edges show slightly conchoidal fracture : the sides are finely polished, showing also indistinctly drawings of figures upon them which have been made, Mr. Cushing thinks, with stone tools : it is black, of moderate hardness, sp. grav. about 2.78, and effervesces with dilute acid.

In Vol. xxi, Pls. i, ii and iii, of the *Proceedings*, some drawings are given of the Pictured Rocks on the Monongahela, showing good examples of the Shamanistic symbol writing of the tribes which roamed there before the advent of the white man, and I have the pleasure also of exhibiting casts made from impressions in plaster taken from some rocks in the Susquehanna at Safe Harbor, Lancaster county, Pa., and presented through Prof. T. C. Porter, by the Linnæan Society of Lancaster county, figured in the *Proc.*, Vol. x, pp. 30, 255, and Pls. i and xiii. These figures, cut by stone implements in the limestone rock, give striking representations of the sacred dances participated in by Indians wearing masks, and of various mythic creatures such as the thunder-bird, etc.

The 12 faces of the figure may be divided into 4 groups of 3 faces each, forming 4 solid angles, which may be connected so as to form the four-legged Sphastica: or those may be united to form a triskele. There are in all 30 dividing edges and $12 \times 30 = 360$; add a 5 and you have the days of the year. The 13 (sum of the faces and the object itself) multiplied by the 4 points above noted gives the number 52, the Aztec cycle—while 4 adjacent faces, each with 5 sides, would give 20, the unit of a man. Or, again, 3 edges unite so as to form 20 three-sided points. Thus the cube and pentagonal dodecahedron might be used to represent all the mystic numbers. While those of the cube were connected more with the extreme orient, those of the dodecahedron may be found there as also in Egypt and Mexico.

I cannot refrain from the suggestion that perhaps this dodecahedron may throw some light on the customs and civilization of the mound builders of Ohio.

DISCUSSION.

MR. FRANK HAMILTON CUSHING, in response to a request of the President, commented upon and discussed the subject at considerable length.

After a few general remarks relative to Shamanism, or, more properly, Primitive Priestcraft, which he defined as the outgrowth of the "Religion and Philosophy of Mystery," of the attempted explanation of the unknown,—the realm of which, he stated, grew greater and greater as we progressed farther and farther backward

in time and the history of human culture growth,—he expressed himself as follows :

The account Dr. Morris has given us as to what Mr. Williams related to him concerning the life of an Indian youth of the Nez Percé tribe has interested me exceedingly by reason of its striking similarity to what I have myself heard, seen, and experienced among the Zúñi Pueblo Indians of New Mexico.

With these people, a child is not thought of, when first born, as quite yet a living *mortal* being. It is referred to as "it" or the "new being," nor is any name given to it until after the lapse of nine days. It is supposed to be *kái'-yu-na* and *ai'-ya-vwi*—unripe and tender, or soft and susceptible as are germinating seeds or unfinished clay vessels, until after one full day for each of the lunar months of its inter-uterine gestation has passed. During this period of nine days it is usually kept with its mother, secluded from the outer world and from sunlight, in order that it may gradually become hardened to, and so, safe in the "world of daylight"—as these people term the scene and condition of mortal life—that is, condensed to "middle being"—as they further term man's particular mortal existence.

At the close of this ceremonial period the umbilical cord, which has meanwhile sloughed off or has been removed and zealously cared for, is ceremoniously buried in the soil at some particular place, in order that thereat may be formed the "midmost shrine" of the child, and therein its connection with the earth mother—as formerly with its mortal mother—may be established, and that its vitality apart from her thenceforward, be maintained—by thus placing within the fertile bosom of the Universal Mother, that through which erstwhile the child received separately, or secondarily, its being nourishment and growth, from its human mother.

Passing over many other ceremonials which attend the first naming of the child, its introduction to the Sun and to the tribe of its descent, on the early morning of the tenth day,—that is, at the end of these nine natal days,—a few words relative to the meaning of the "midmost shrine" will serve to indicate what would likely be the symbolic significance to a people like the Nez Percé and the Zúñi Indians, of such an object (whether natural or artificial) as the one to which Dr. Morris has called our attention.

He has quite accurately stated, in the theory he has advanced regarding this object, the view one of these Indians would hold, as

to the meaning of the *number* of its sides or faces and itself. To one of them, a cube would not be representative of six, its number of superficies, but of *seven*; and a dodecahedron, not of twelve, but of *thirteen*. For, when an untutored or primitive man like him, contemplates or considers himself or any other distinct thing, in his or its relation to space or the surrounding directions, he notes that there is ever a front or face, a rear or back; two sides, or a right and a left; a head and a foot, or an above and a below; and that of and within all these, is himself or it; that the essence of all these aspects in anything, is the thing-itself—that is, the thing that contains their numbers or sum, yet is one by itself.

This is indeed the very key to his conception of himself and of everything, in relation to space and the universe or cosmos. He observes that there are as many regions in the world as there are aspects of himself or sides to any equally separate thing; that there are as many directions from him or his place in the world (which is his “midmost” or place of attachment to the Earth-mother) or from anything in the world (which is *its* midmost or natural station) toward these corresponding regions. Hence to him a plane would be symbolized not by four, but by *five*, its four sides and directions thence, and its central self—as was actually the notion of the Prairie tribes; a cube, not by six, but by *seven*, as was the notion of the Valley-Pueblos and Navahos; a dodecahedron, not by twelve, but by thirteen, as was the notion of the Zúñis, the Aztecs, the Mayas, and apparently—from this example—of the Mound builders as well.

With all that I have thus far said I cannot yet have made clear to you the relation this supposed connection of beings and things to their surroundings, to the regions in front, behind, at the right and left sides, and above, below and within them, can have to the subject under discussion. It will therefore be necessary for me to crave your patience while I enter a little more fully into a consideration of the beliefs of primitive man concerning *force*, *life*, and *form*, for it will be seen that these beliefs have a direct bearing on this apparently fantastic and mystic meaning of the numbers *seven* and *thirteen*.

To the primitive Shaman, all force necessarily seems to be derived from some kind of life, since he continually sees force as motion or stress originated in, or initiated as action by, life in some form—his own, or some other. Now the supreme characteristic or

concomitant of his own or of any other form of life, is breath, which like force or stress, is invisible ; hence he reasons that force is breath, and conversely that breath is the force of life. He sees that this breath enters into and issues from every living being, and since every such being has distinctive form, he further reasons that every separate form, whether animate in our sense or not, has life of some kind or degree. He has, for example, no knowledge of air—as a gas—no knowledge of it other than as wind, and no conception of wind other than as breath, as the sort of something that he feels when he blows upon his hand and knows absolutely that he or his own breath is blowing, and that this breath it is that is coexistent with his mortal existence.

Therefore, he thinks not only of all forms as living, but also of the wind as necessarily the breath of some living form or being. And since his own little breath is so intimately of himself, he naturally imagines that this other greater breath must needs be as intimately that of some other and correspondingly greater and more powerful—what though invisible—being. He also imagines that this great being of the wind resides in the direction whence comes preëminently its wind or its breath. Now when he observes that there are prevailing or distinctive winds of the diverse directions,—that of the north which blows hardest of them all and chiefly in winter ; that of the west which blows more temperately and chiefly in spring time ; that of the south, which blows softly and most frequently in summer ; that of the east, which is again more fierce and chilly, and blows mostly in autumn ; he not only severally locates these winds in their various quarters, but also differentiates them, and believes that the wind-being of the north produces cold and winter ; of the west, moisture and spring ; of the south, warmth, dryness and summer ; of the east, coolness again, frost, and therewith the aging or maturing of all growing things, and autumn. And so to him the element of the north world is wind (or air, breath) preëminently ; of the west world, water ; of the south world, fire ; and of the east world, earth or its seeds ; and that each of these elements is produced by or is under the dominion of the special wind-god of its quarter ; yet all combine, in the regular succession of the seasons, to make this World of the Middle what it is from year to year.

Now we shall see how this kind of belief comes to affect very directly the organizations, institutions and ceremonials (Shamanistic in particular) of primitive man, by examining into his mode of

personifying the various gods or wind-monsters of the several quarters, and then of relating them to various divisions of his tribal communities. We have seen how he imagines that each one of these great world-breaths—productive as they are of effects so different—must proceed from beings of equally different character. How, therefore, he first not only locates these monster beings definitely in the several quarters of the world whence the winds or their breaths blow, but how also he imagines them to be beneficent or evil according to the various effects of their breaths, and then endows them with personalities corresponding to those of such of the animals especially characteristic of these several regions, as by their actions seem most closely to conform to these effects. The connection this has with the sociologic organization of the tribe may be explained without entering greatly into detail relative to the constitution of Indian society. You are all aware that the sociologic institutions of primitive peoples are almost universally Matriarchal, that is, are based upon *Clan* organization and mother descent. With them, each clan in the body politic is symbolized by some totem, animal or plant. Now since the various animals are supposed, according to their kinds, to be especially resident in one region or another, not only is there attributed to the Great Being or God of Wind in a particular region, a form more or less like to that of his supposed kind of animal therein, but also, the clans are organized with reference, in turn, to the supposed relation of their totems to these various animals and animistic or mythic beings of the special regions. And so, when, for example, a name is to be conferred upon a child of one of these totems, some process of divination must be entered into to determine what shall be his relation to the creatures and the deific being of one region or another, and correspondingly, of course, to his fellows among the clans. For it is held to be essential that this sacred relationship be symbolized, in some way or another, in the choice of his totemic name, and thus—as well as for many reasons into a consideration of which I cannot enter here—must be divined. Now in this process of divination, various instrumentalities are employed. For example, among the Zúñis, wands painted in diverse colors—each color being symbolic of a special region and plumed with appropriate bird feathers,—are sometimes set up in balls of clay, each placed out on the floor in the direction of the region to which the color of its wand relates it. Then it is noted which of the plumes waves most

actively in any wind (or breath) that may be stirring. From this, the spiritual relation, so to say, or the source or totemic origin of the child is divined, and he will be named, and to a certain extent the course of his life will be determined upon according to this divination. For example, the Zúñi totem gods of the several regions are: the Gray Wolf for the East or Dawn-Land; the Mountain Lion or Puma for the North or fierce Winter-Land; the Black Bear for the Land of the West or Night; the sun-loving Badger for the South or Summer-Land; the Eagle for the Sky and Light, and the Burrowing Mole for the Under-Land and Darkness. Let us suppose that the plume on the white wand—the one that is set up toward the east—waves most actively; then, what though the child belong to a clan or totem of one of the other regions, he will nevertheless be regarded as *spiritually* related to the Gray Wolf of Dawn, and it will be believed by his fellows—and with their belief he will himself become, as he grows toward puberty, more and more impressed,—that he is destined for membership in the sacred organization or Shamanistic Society or Lodge of the Medicine-men of the East, or of the Wolf deity. Now when the age of puberty is attained, and the boy is to be solemnly invested with the garment or clout and the responsibilities of manhood, he is, as in the account quoted by Dr. Morris from Mr. Williams, required to pass through various ordeals, such as a period of vigorous fasting and purification (this both by means of emetics and purgatives); and to retire to some lonely spot and there keep, day and night, lengthy vigils, whereby it is sought to diminish for a time his earthly grossness interests and affections, to “still his heart” and quicken his spiritual perception and hearing of the meaning of the “Silent Surpassing Ones.” This is in order that he may gain sign from or actually behold one of the Beings who wield, in the great quarters, the forces of nature, and who shall thereafter be his special Tamanawa or spiritual guide. It is also in order to aid him in seeking for some objective sign by which this relationship to his Genius may be proven to himself and made manifest to his people. In a condition of exaltation as he is—and I can attest to its absorbing nature, through having myself endured such an ordeal—you can well understand that his perceptions will become startlingly manifest in the various visions and signs he sees. These will seem to him, I can again personally assure you, far more real than the most absolutely actual things he has ever beheld or experienced. Perchance he

gazes at the mist, or a cloud in the sky. The cloud will surely seem to take the form of a great gray wolf, and when he seeks for some token of that God of the Sky,—a tooth-like fossil, a few hairs maybe, which he may find on the ground nearby or underneath the apparition, will be reverently accepted as potent amulets, and he will bear them to the tribal Fathers or Shamans, and by them they will be received as a sign of his Genius, and he will be relegated to the phratral division or lodge of the Wolf. Or again, it may be that he will find a crystal, and because this crystal shines clearly and therein resembles the light by which we see and the eye through which we see—and hence is regarded as helpful in seeing—it will be regarded as a token of seership, as a sign of the Seeing Spirit, and fortunate the youth who is thus supposed to be endowed with the power of penetration into the unseen. To give yet one more example, let us suppose that he finds a concretion exhibiting spiral or concentric lines. He will regard this as a symbol of the Midmost itself, a token of his relation thereto also—no matter to what totem he may belong, or to what region he may be related by birth. For the spiral lines perceived in this crystal resemble those of the marks upon the sand produced by the whirling about of objects like red-topped grass by the whirlwind, yet which are regarded as the tracks of the whirlwind god, whose breath is the midmost of all the winds of the world.

Permit me to here give parenthetically a striking illustration of the way in which these primitive Shamans personify phenomena of nature, by instancing their personification of this god of the whirlwind. Of all the winds of heaven, the whirlwind alone is upright—progresses as man does, by *walking* over the plains. The whirlwind god is therefore endowed in part, with the personality of a man; but like the eagle, also, the whirlwind flies aloft and circles widely in the sky; therefore he is endowed with the wings and tail, the head, beak and talons of an eagle. Since the sand which he, the whirlwind, casts about, pricks the face as would minute arrows, the dreadful wings of the god are supposed to be flinty, and his character warlike or destructive, as is that of the eagle; yet of all the Beings of Wind, he is the most potent, for he twists about or banishes utterly from his trail, either the north wind or the south, the east wind or the west, and overcomes even gravity,—the pulling-breath of the earth or under world,—and therefore is the god of the midmost among all the six gods of wind. Thus, lucky in a purely prac-

tical way, is he who finds under given auspicious circumstances, his name-token in the shape of a little concentric concretion, for he will be in the line of ordination thereby, to the Central Council or Priesthood of his people.

And now I would fain add a word, another parenthetic statement, in amplification of what Dr. Morris has said in regard to the "Medicine-men," Priests or Shamans, of such primitive peoples,—in regard, that is, to their earnest character, to which I can fully testify.

I am aware that they are generally supposed to be mere quacks, charlatans or jugglers. I never knew one of them to be anything of the sort. Quite the contrary. I have lived among them in the tribe of my adoption, and was even initiated as one of their number, so far as was possible for one not born in the tribe, namely, into their Society of Warriors—"the *A'pithla Shi'wani*," or "Priesthood of the Bow"—and, moreover, I have been received in fraternal manner, by members of the priesthoods or medicine societies of other tribes. Now hardly a traveler among the Indians who does not come back and report what he thinks he saw when watching the operation of one of these medicine-men, but almost invariably his report is unreliable, from lack of understanding of what he saw. Let us take, for instance, the common account that is given of an Indian Medicine-Man endeavoring to effect a cure. It is said that he pretends to charm or to suck or rub forth a worm or a wasp or a grub or some other small object, from the diseased part of the man or woman he is treating. The traveler usually states that he saw the Medicine-Man, after going through his ceremonies, pretend to pluck out a wasp or grub or other object, and hold it up for the edification of the bystanders. A little thought in regard to what really occurs will explain all this. We all have our medical theories; so has the Indian Medicine-Man. Among the injuries the Indians are exposed to by their mode of living, a bruise from a stone or a hatchet would be, let us say, the most frequent. This bruise may fester and give rise to suppuration. The wound, naturally ill-cared for in their condition of life, would readily become offensive and breed maggots, which would batten on the sore. Now these people observe that decaying meat also produces maggots or "turns" to them, for, from their observation of countless slain animals, they believe that all flesh comes from, and returns to, worms. That the flesh may not be further destroyed, the Indian Medicine-Man will seek to exterminate these destructive worms; will seek for some other maggot

which he will squeeze out in order that its form may so be fitted to absorb the invisible form of the infesting maggot ; or else he will seek for some insect which preys upon maggots, like certain wasps, and will apply it to the infected place, using such aids as he can, by rubbing, scarifying, squeezing, sucking or blowing the diseased place, until he succeeds in forcing out the pus or black blood or serum and securing or snaring, as he supposes, the seed or occult creature of the ill. Then he will hold up the crushed grub or wasp, merely to show how successfully it has absorbed or fought and destroyed this disease-causing worm, but with no more thought whatsoever of chicanery, than a surgeon among ourselves would have in exhibiting a needle he had extracted from the hand or foot of his patient.

Now I have gone a long way around the subject in hand, in order to measurably substantiate my reasons for thinking that Dr. Morris is correct in his hypothesis as to the sacred and symbolic character and origin of the pentagonal dodecahedron which he has exhibited and commented upon here to-night. A figure even as elaborate and difficult of production in stone as is this, could readily have been formed by Indian artisans. Its shape might have been suggested in the process, perfectly familiar to them, of knapping a block or cube of stone, and afterwards breaking away its angles by battering, to form a sphere ; or, better still, by the shapes of balls of clay—naturally formed round in the hands—and used as by the Zúñis in their processes of name—divination just described ; or again, by the shapes of pentagonal or other like—ever sacred—crystals. The scratchings or figures observed upon the various faces of this stone are quite such as might well have been drawn to differentiate them as being related to one region or another, and in all probability the figures thus scratched were further marked with pigments symbolic of the different regions, when this stone was used in such processes of divination. Close observation of the more distinct lines of these figures on the faces of the stone, shows that they were made by a flint point, not a metal instrument ; for they are double,—that is within each one is a minute bead such as would be produced by the fracturing of a fine point of flint or other hard concoidal stone when drawn over the surface of another stone like this,—and not simply V-shaped as would have been the case had a metal instrument been used.

Some question may arise in the minds of those who have listened to Dr. Morris' paper, and to my comments thereon, as to the mean-

ing of the twelve faces in this particular specimen ; since, as I have explained there are only *six* regions, the north, west, south, east, upper and lower, that the midmost is at once surrounded by and contains within, itself. But I failed to say earlier and in the proper connection, that to the primitive-minded man, as there is no form without life, so there is no life-form, without due duality of origin—the father and the mother. Consequently we find that in relation to all things, (with tribes of primitive peoples like the Zuñis of to-day, and like the mound builders of long ago, who possessed and revered this object), the sexenary division is duplicated ; but since there can be only one middle or content, the sexenary division is with them symbolized by the number seven, and when duplicated, we have, not fourteen, but thirteen ; that is, six pairs which are visible, but only one for the concentric or synthetic middle, since there can be but one actual centre or middle to anything, even to the great world.

[Mr. Cushing stated, when a fuller revision of these notes was requested, that he would, at some future time, if the Society so desired, present instead a more comprehensive address on Shamanism in general.]

Stated Meeting, May 7, 1897.

The President, Mr. FRALEY, in the Chair, assisted by Vice-President, Dr. PEPPER.

Present, 68 members and about 100 visitors.

The Secretary presented the following correspondence :

A letter from Prof. James Glaisher, dated South Croydon, March 16, 1897, accepting membership.

A letter from the President announcing the appointment of the following members to prepare obituary notices of deceased members, viz.:

Dr. J. Cheston Morris, for Dr. Henry Hartshorne and
Prof. H. D. Gregory.

Prof. Albert H. Smyth, for Prof. George Stuart.

Mr. Joseph C. Fraley, for Mr. Arthur Biddle.